

AMENDMENTS TO THE CLAIMS

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Please amend the claims as follows:

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1. (Original) A method for determining, by a behavior expert, the performance of an infrastructure component based on the operational information relevant to the performance of said infrastructure component, said method comprising: obtaining said operational information, from at least one data provider connected to said infrastructure component, said operational information providing values for a set of variables that are used to define the performance of said infrastructure component; transforming zero or more states, controlled by said behavior expert, according to a set of metric rules, employed by said behavior expert, based on the values of said set of variables; and generating zero or more events, indicating the performance of said infrastructure component, according to a set of behavior rules, employed by said behavior expert, based on said states transformed by said transforming.

2. (Original) The method according to claim 1, wherein each of said metric rules includes an if-then statement, relating a set of variables to a set of states, where the if-condition of said if-then statement is expressed as relations between said set of variables and their values and where the actions of said if-then statement describe said set of states to be transformed, when the if-condition of said metric rules is satisfied, and the manner the set of states to be transformed.

3. (Original) The method according to claim 1, wherein each of said behavior rules includes an if-then statement, relating a set of states to a set of events, where the if-condition of said if-then statement is expressed with respect to said set of states and the actions of said if-then statement describe the set of events to be generated when the if-condition of said behavior rules is satisfied.

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4. (Original) The method according to claim 2, wherein said if-condition includes at least one of: a quantitative condition expressed as at least one relation between a variable and its corresponding quantitative value; a qualitative condition expressed as at least one relation between a variable and its corresponding qualitative value; and a combination of quantitative and qualitative condition which includes at least one quantitative condition and at least one qualitative condition.

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5. (Currently amended) The method according to claim 4, wherein said quantitative value ~~include~~ includes at least one of a numerical value, a Boolean value, and a string value.

6. (Original) The method according to claim 4, wherein said qualitative value includes at least one of a linguistic qualifying term represented by a fuzzy set.

7. (Original) The method according to claim 1, further comprising: declaring zero or more elements of said behavior expert as public elements so that said elements can be accessed by different behavior experts; and specifying zero or more different behavior experts as the dependencies of said behavior expert so that the elements declared by said different behavior experts as public elements can be accessed by said behavior expert.

8. (Original) The method according to claim 7, wherein said elements include at least one of a state, an event, and a fuzzy set.

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9. (Original) The method according to claim 1, further comprising: forming uniform event representation for said events, generated by said generating, in accordance with a standard format; and posting said uniform event representation of said events in an event pool.

10. (Original) The method according to claim 1, wherein said at least one data provider includes at least one of a service, an operating system, an application, an external transaction, a network, and a behavior expert.

11. (Original) A behavior expert system for determining the performance of an infrastructure component based on the operational information relevant to the performance of said infrastructure component, said system comprising:

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an acquisition mechanism for obtaining said operational information, from at least one data provider connected to said infrastructure component, said operational information providing values for a set of variables that are used to define the performance of said infrastructure component;

a state transformation unit for transforming zero or more states according to a set of metric rules based on the values of said set of variables; and

an event generation unit for generating zero or more events, indicating the performance of said infrastructure component, according to a set of behavior rules, based on said states transformed by said state transformation unit.

12. (Currently amended) The system according to claim ~~10~~ 11, further comprising: an output port for exporting zero or more elements of said behavior expert system as public elements so that said elements can be accessed by different behavior expert systems; and an

input port for importing zero or more elements from different dependent behavior expert systems wherein said zero or more elements are declared as public elements by said different behavior expert systems.

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13. (Currently amended) The system according to claim ~~11~~ 12, wherein said elements include at least one of a state, an event, and a fuzzy set.

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14. (Currently amended) The system according to claim ~~10~~ 11, further comprising: an event representation generator for constructing uniform event representations for said events, generated by said event generation unit, in accordance with a standard format; and a posting mechanism for posting said uniform event representations of said events in an event pool.

15. (Original) The system according to claim 13, wherein said standard format includes a uniform data model.

16. (Currently amended) The system according to claim ~~10~~ 11, wherein said event pool includes a blackboard.

17. (Original) A computer-readable medium encoded with a program for determining the performance of an infrastructure component based on the operational information relevant to the performance of said infrastructure component, said program comprising:

obtaining said operational information, from at least one data provider connected to said infrastructure component, said operational information providing values for a set of variables that are used to define the performance of said infrastructure component;

32 transforming zero or more states, controlled by said behavior expert, according to a set of metric rules, employed by said behavior expert, based on the values of said set of variables; and

generating zero or more events, indicating the performance of said infrastructure component, according to a set of behavior rules, employed by said behavior expert, based on said states transformed by said transforming.

18. (Currently Amended) The computer-readable medium according to claim 16 17, wherein said at least one data provider includes at least one of a service, an operating system, an application, an external transaction, a network, and a behavior expert.

19. (Currently Amended) The computer-readable medium according to claim 16 17, wherein each of said metric rules includes an if-then statement, relating a set of variables to a set of states, where the if-condition of said if-then statement is expressed as relations between said set of variables and their values and where the actions of said if-then statement describe said set of states to be transformed, when the if-condition of said metric rules is satisfied, and the manner the set of states to be transformed.

20. (Currently Amended) The computer-readable medium according to claim 4 17, wherein each of said behavior rules includes an if-then statement, relating a set of states to a set of events, where the if-condition of said if-then statement is expressed with respect to said set of states and the actions of said if-then statement describe the set of events to be generated when the if-condition of said behavior rules is satisfied.

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21. (Currently Amended) The computer-readable medium according to claim ~~18~~ 19, wherein said if-condition includes at least one of: a quantitative condition expressed as at least one relation between a variable and its corresponding quantitative value; a qualitative condition expressed as at least one relation between a variable and its corresponding qualitative value; and a combination of quantitative and qualitative condition which includes at least one quantitative condition and at least one qualitative condition.

22. (Currently Amended) The computer-readable medium according to claim ~~20~~ 21, wherein said quantitative value ~~include~~ includes at least one of a numerical value, a Boolean value, and a string value.

23. (Currently Amended) The computer-readable medium according to claim ~~20~~ 21, wherein said qualitative value includes at least one of a linguistic qualifying term represented by a fuzzy set.

24. (Currently Amended) The computer-readable medium according to claim ~~1~~ 17, said program further comprising: declaring zero or more elements of said behavior expert as public elements so that said elements can be accessed by different behavior experts; and specifying zero or more different behavior experts as the dependencies of said behavior expert so that the elements declared by said different behavior experts as public elements can be accessed by said behavior expert.

25. (Currently Amended) The computer-readable medium according to claim ~~23~~ 24, wherein said elements include states, events, and fuzzy sets.

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26. (Currently Amended) The computer-readable medium according to claim + 17, said program further comprising: forming uniform event representation for said events, generated by said generating, in accordance with a standard format; and posting said uniform event representation of said events in an event pool.

27. (Currently Amended) The computer-readable medium according to claim ~~25~~ 26, wherein said standard format includes a uniform data model.

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28. (Currently Amended) The computer-readable medium according to claim ~~25~~ 26, wherein said event pool includes a blackboard.

29. (Original) The method according to claim 3, wherein said if-condition includes at least one of: a quantitative condition expressed as at least one relation between a variable and its corresponding quantitative value; a qualitative condition expressed as at least one relation between a variable and its corresponding qualitative value; and a combination of quantitative and qualitative condition which includes at least one quantitative condition and at least one qualitative condition.

30. (Original) The computer-readable medium according to claim 19, wherein said if-condition includes at least one of: a quantitative condition expressed as at least one relation between a variable and its corresponding quantitative value; a qualitative condition expressed as at least one relation between a variable and its corresponding qualitative value; and a

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combination of quantitative and qualitative condition which includes at least one quantitative condition and at least one qualitative condition.

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31. (New) A system for determining the performance of an infrastructure component based on the operational information relevant to the performance of said infrastructure component, said system comprising:

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a plurality of behavior experts wherein each behavior expert includes an array of one or more internal states which are assigned values by said behavior expert such that different internal states contain information collected at different times; and

a plurality of bi-directional linkages between said behavior expert systems wherein each behavior expert system has access to the internal states of other behavior expert systems within the plurality, forming a specific topology of linked behavior experts.

32. (New) The system as claimed in claim 31, wherein each behavior expert transforms its own internal states, according to a set of metric rules, based on the internal states within said behavior expert and one or more internal states of one or more other behavior experts within the plurality of behavior experts.

33. (New) The system as claimed in claim 32, wherein each behavior expert generates events, according to behavior rules, based on the internal states within said behavior expert and one or more internal states of one or more other behavior experts within the plurality.

34. (New) The system as claimed in claim 31, wherein each behavior expert operates at an independent execution frequency.

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35. (New) The system as claimed in claim 31, wherein when the topology of the linked behavior experts is altered, the bi-directional linkages between the behavior experts are changed dynamically.

36. (New) The system as claimed in claim 35, wherein when the operation of the infrastructure component changes, select behavior experts within the plurality are dynamically instantiated or destroyed.